

10/578388

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IPEA  
EPO  
D-80298 Munich  
Germany

17 November 2005

Dear Sirs

**PCT/GB2004/004702**  
**Our ref: Rapid Dev (PCT)**

Thank you for the Written Opinion of the ISA.

The Written Opinion cites the following against the independent claims:

- D1** WO 03/036470 and
- D2** WO 03/065654

In light of the citations, the applicant files replacement pages as follows:

3 – 8, 47 - 50

Triplicate copies will follow by post, together with one set marked to show all changes.

Amended Claim 1 now reads:

1. Method of rapid software application development for a wireless mobile device, the application being an enterprise networked application in which the device communicates with an enterprise server over one or more types of network connection; the method comprising the steps of:

- (a) a developer using a standard, high level interface (that is not specific to the mobile device OS) on a computer remote from the mobile device to call, over one of the network connections, modular software elements running on the device, the modular elements each (i) encapsulating functionality required by the wireless mobile device and (ii) executing on the device, under the control of an interpreter of the high level interface;

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- (b) the developer causing elements on the device to be combined using a scripting engine running on the device; and
- (c) the developer exploring how different elements respond to inputs by repeating steps (a) and (b).

### Support for the new Claim 1

1. Method of rapid software application development for a wireless mobile device, the application being an enterprise networked application in which the device communicates with an enterprise server over one or more types of network connection<sup>1</sup>; the method comprising the steps of:

- (a) a developer using a standard, high level interface (that is not specific to the mobile device OS<sup>2</sup>) on a computer remote from the mobile device to call, over one of the network connections, modular software elements running on the device<sup>3</sup>, the modular elements each (i) encapsulating functionality required by the wireless mobile device<sup>4</sup> and (ii) executing on the device, under the control of<sup>5</sup> an interpreter<sup>6</sup> of the high level interface<sup>7</sup>;

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<sup>1</sup> “This is illustrated by the following example for developing a networked application on the mobile device that enables a user to make full use of an enterprise CRM system for better customer relationships. To do this, software must be developed on the mobile device that can connect to an enterprise server, that implements the CRM system and manages all of the customer interactions for the enterprise.” Page 11 lines 6 - 11

<sup>2</sup> “Provides a single interface from a wide range of programming languages, including command-line and scripting interfaces, to mobile devices running a wide range of operating systems”. Page 7 lines 22 - 25

<sup>3</sup> Original Claim 9.

<sup>4</sup> Original Claim 1

<sup>5</sup> Original Claim 1

<sup>6</sup> “A command interpreter interfaces to a smartphone through a set of commands or pipe processors”. Page 10, line 15

<sup>7</sup> “Using the set of pipe processor components that can be called from both a command-line interface, scripting language and variety of programming languages enables both phone users with no programming experience to ‘program’ software on the phone as well as advanced software developers, all using the same components.” Page 7 lines 3 - 8

- (b) the developer causing elements on the device to be combined using a scripting engine running on the device<sup>8</sup>; and
- (c) the developer exploring how different elements respond to inputs by repeating steps (a) and (b)<sup>9</sup>.

### **Novelty and inventive step**

The amended claim now focuses on the interaction between a development computer and the mobile device. **D1** is entirely silent on what role a remote development computer would play and hence fails to disclose or suggest the features now defined in Claim 1. In fact, at Intuwave (applicants for **D1**) the possibility of developing software applications using the approach now defined in amended Claim 1 was not even appreciated at the filing date of **D1**.

Original Claim 9 introduced the feature of the remote development computer. The examiner has referenced the **D1** text describing MStreamShell and also MStreamScript on page 16 as being relevant to original Claim 9. But in fact neither mention any kind of remote development computer, let alone one operating in the way now defined in Claim 1.

The examiner has also referenced the **D1** text describing the 'mView' example, given at **D1**, page 20 et seq as being relevant to original Claim 9. Although this deals with a remote desktop computer controlling a mobile device, mView is not a system for developing applications for that mobile device at all; instead, it merely allows the remote desktop to communicate with an already created application running on the mobile device, giving the desktop computer control over the mobile device.

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<sup>8</sup> "A powerful and compact (60k) LUA 5.0 scripting engine is included on the smartphone to allow a developer to readily combine pipe processor functionality directly using scripts". Page 17 lines 20 – 23.

<sup>9</sup> "Speed of development: mrix development is done in rapid iterations by evolving scripts rather than coding against APIs. This significantly speeds up the development lifecycle." Page 18, lines 19 -21.

In the light of the above arguments and amendment, re-consideration of the present application is requested. Should the examiner require further clarification, a further Written Opinion is requested.

Yours faithfully,

Peter Langley